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EXAMINER	
BODDIE, WILLIAM	

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/665,384	ROBINSON, ROBERT J.	
	Examiner	Art Unit	
	William Boddie	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 6/15/06 have been fully considered but they are not persuasive.

1. On pages 2-3 of the Applicant's remarks, the Applicant argues that it would not have been obvious to combine Ha's game pad with that of Glover due to the necessity to redesign the gamepad.

The Examiner respectfully disagrees, Ha and Glover are analogous art, as shown in the previous office action, and there is motivation to combine the two. Furthermore, combining Glover with Ha still allows for the invention of Ha to function as required.

Furthermore, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

2. On pages 3-4 of the Applicant's remarks, the Applicant argues that Solomon does not fulfill the claim limitation "such that an outermost edge of the outer surface of the input component conforms to an outermost edge of the exterior surface of the display component." Specifically at the top of page 4, the Applicant argues that

Solomon does not require a cradle-free cartridge, and that the keyboard may still overlap a portion of the PDA.

The Examiner respectfully disagrees. It seems clear from figure 16 of Solomon that none of the keyboard is overlapping any of the PDA and that the keyboard fulfills the above limitation of the claim. This is further corroborated in paragraph 10 ("the PDA is docked **on** the keyboard, but **not in a bay or recess**"), and paragraph 55 ("keyboard 20 is docked to PDA 10 in such a way to **cover none of the PDA** and to leave its buttons clear for use."). The Applicant appears to argue that Solomon does not require there to be no overlap between the keypad and the PDA. It is unclear to the Examiner how figure 16 and paragraph 55 could be anymore direct on this topic. Solomon clearly states that the keypad covers **none** of the PDA, and figure 16 shows a clear demarcation between the two devices. From these two paragraphs and figure 16, it seems extremely clear that Solomon discloses the aforementioned claim limitation.

The Applicant further argues that Solomon's claims do not address the embodiment seen in figure 16 or discuss an embodiment which requires no overlap. This fact, even if true, does not discount the previous discussion of the figure 16 embodiment in paragraphs 10 and 55.

3. In response to applicant's arguments against the references individually (discussion of Glad; page 6 of Remarks), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

4. In response to applicant's argument that the examiner has combined an excessive number of references (page 6 of Remarks), reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

As shown above the merits of the previous rejections are seen as proper by the Examiner. As such the rejections are maintained in this office action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4, 6-8, 15-19, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha et al. (US 6,530,838) in view of Glover (US 2003/0157961) and further in view of Solomon et al. (US 2003/0006968).

With respect to claim 1, Ha discloses, a multi-component electronic device (fig. 1) which comprises:

a) a display component (31 in fig. 1), comprising a housing having an exterior surface (note exterior surface of 30 in fig. 1); a microprocessor within the housing (320 in fig. 5); a data memory within the housing (360 in fig. 5), which data memory is electrically coupled to the microprocessor (360 is clearly connected to 320 in fig. 5) a data display on the external surface of the housing (display in 31 of fig. 1), which data

display is electrically coupled to the microprocessor and the data memory (330 is clearly connected to 320 and 360 in fig. 5); and a first electrical connector (33 in fig. 1).

b) an input component (10 in fig. 1), comprising a keypad having an outer surface (clear from fig. 1), a data input element (buttons, 12 in fig. 5) on the outer surface of the keypad; wherein the keypad comprises a second electrical connector (17 in fig. 2) and which input component is matedly and removably attachable to the display component via a first electrical connector (col. 3, lines 1-5) such that the data input element is electrically connected to a microprocessor (clear from fig. 5 that 150 is connected to 320), and wherein the data input element is capable of inputting data into the microprocessor (col. 2, lines 8-21; col. 4, lines 8-12).

Ha does not expressly disclose a cartridge-type input device or a communication interface (Ha does, however, propose separately connecting the keypad to a mobile phone; col. 4, lines 43-46).

Glover discloses, a multi-component electronic device (16 in fig. 2), comprising an input cartridge-type device (18 in fig. 2) comprising, a wireless modem (14 in fig. 3), capable of transmitting data between a telecommunications network and a microprocessor (page 2, para. 19 also see para. 21).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the wireless modem, taught by Glover, in the input device, taught by Ha.

The motivation for doing so would have been to reduce the components and bulk associated with wireless data access (Glover; para. 6).

Neither Glover nor Ha expressly disclose, such that when the first electrical connector is attached to the second electrical connector the outer surface of the input component is juxtaposed to the exterior surface of the display component such that an outermost edge of the outer surface of the input component conforms to an outermost edge of the exterior surface of the display component.

Solomon discloses, such that when a PDA (10 in fig. 16) is attached to keyboard input cartridge (20 in fig. 16) the outer surface of the input cartridge is juxtaposed to the exterior surface of the display component such that an outermost edge of the outer surface of the input component conforms to an outermost edge of the exterior surface of the display component (note that the junction between the PDA and cartridge conform to one another with no overlap; also see paras. 10 and 55).

Solomon, Glover and Ha are all analogous art because they are from the same field of endeavor namely, multi-component electronic devices comprising removable keypad input means.

It would have been obvious to one of ordinary skill of art to design the keypad of Ha and Glover to conform with the PDA as taught by Solomon.

The motivation for doing so would have been to provide a cleaner interface as well as to decrease the size of the input device (Solomon; para. 55); thereby increasing portability.

Therefore it would have been obvious to combine Glover with Ha and subsequently with Solomon for the benefit of the smaller size of the input device to obtain the invention as specified in claim 1.

With respect to claim 15, claim 15, section I is merely a recitation of the limitations of claim 1. As such section I is rejected on the same grounds shown above in claim 1.

With respect to section II-IV, Ha further discloses, inputting data and function commands into the microprocessor of the display component via the data input element of the removable input component and subsequently processing and displaying entered data (throughout the specification Ha refers to data entry and commands being input to the PDA via the keyboard and processed and displayed, specifically note col. 2, lines 8-22 and fig. 5).

With respect to claims 2 and 17, Solomon, Glover and Ha disclose the multi-component electronic device of claims 1 and 15 (see above).

Ha further discloses, wherein the first connector comprises a data port (col. 2, lines 8-21 for example; disclose data being transferred over the interface).

With respect to claims 3 and 18, Solomon, Glover and Ha disclose the multi-component electronic device of claims 1 and 15 (see above).

Solomon further discloses, wherein the second connector comprises a data port (col. 2, lines 8-21 for example; disclose data being transferred over the interface).

With respect to claims 4 and 19, Solomon, Glover and Ha disclose the multi-component electronic device of claims 1 and 15 (see above).

Ha further discloses, wherein the data input element comprises a keypad (12 in fig. 1).

With respect to claims 6 and 21, Solomon, Glover and Ha disclose the multi-component electronic device of claims 1 and 15 (see above).

Ha further discloses, wherein the data display comprises a liquid crystal display (col. 4, line 15).

With respect to claims 7 and 22, Solomon, Glover and Ha disclose the multi-component electronic device of claims 1 and 15 (see above).

Ha further discloses, the electronic device comprises a hand held electronic data organizer (PDA; 30 in fig. 1).

With respect to claims 8 and 23, Solomon, Glover and Ha disclose the multi-component electronic device of claims 1 and 15 (see above).

Glover further discloses, wherein the communications interface comprises a modem (14 in fig. 3 is clearly a modem).

With respect to claim 16, Solomon, Glover and Ha disclose the method of claim 15 (see above).

Glover further discloses, transmitting data between the microprocessor and a telecommunications network via the communications interface (page 2, para. 19 also see para. 21).

7. Claims 5 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Ha et al. (US 6,530,838) in view of Glover (US 2003/0157961) and further in view of Solomon et al. (US 2003/0006968) and further in view of Glad (US 6,498,720).

With respect to claims 5 and 20, Solomon, Ha and Glover disclose the multi-component electronic device of claims 1 and 15 (see above).

Neither Solomon, Ha nor Glover discloses the data input element comprises a touch screen.

Glad discloses a multi-component electronic device comprising a PDA and a touch screen keyboard (14 in fig. 1; col. 1, lines 15-21).

Solomon, Glover, Ha and Glad are analogous art because they are all multi-component devices combining PDAs and input means.

At the time of the invention it would have been obvious to replace the input keys of Solomon/Glover/Ha with the touch screen of Glad.

The motivation for doing so would have been the increased functionality and greater ease of use.

Therefore it would have been obvious to combine Solomon, Glover, Ha and Glad for the benefit of increased functionality to obtain the invention as specified in claims 5 and 20.

8. Claims 9-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solomon (US 2003/0006968) in view of Glover (US 2003/0157961).

With respect to claim 9, Solomon discloses, a data input device comprising a cartridge (20 in fig. 16) having an outer surface, a data input element (keys in fig. 16) on the outer surface of the cartridge; wherein the cartridge comprises a second electrical connector and which input component is matedly and removably attachable to a first electrical connector (clear from fig. 9 for example) of a hand held electronic data organizer (PDA; 10 in fig. 16) such that when the data input device is attached to the hand held electronic data organizer (fig. 16), the outer surface of the input component is

juxtaposed to the exterior surface of the display component (clear from fig. 16; also note paras. 10 and 55), the data input elements are electrically connected to a microprocessor (para. 42, PDA inherently has a microprocessor r).

Solomon does not expressly disclose including a communication interface or that the data input element is capable of transmitting data between a telecommunications network and a microprocessor.

Glover discloses, a multi-component electronic device (16 in fig. 2), comprising an input component comprising, a wireless modem (14 in fig. 3), capable of transmitting data between a telecommunications network and a microprocessor (page 2, para. 19 also see para. 21).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the wireless modem, taught by Glover, in the input device, taught by Solomon.

The motivation for doing so would have been to reduce the components and bulk associated with wireless data access (Glover; para. 6).

Therefore it would have been obvious to combine Solomon with Glover for the benefit of reduced bulk in wireless access to obtain the invention as specified in claim 9.

With respect to claim 10, Solomon and Glover disclose the multi-component electronic device of claim 9 (see above).

Solomon further discloses, wherein the first connector comprises a data port (para. 51 and abstract).

With respect to claim 11, Solomon and Glover disclose the multi-component electronic device of claim 9 (see above).

Solomon further discloses, wherein the second connector comprises a data port (para. 51 and abstract).

With respect to claim 12, Solomon and Glover disclose the multi-component electronic device of claim 9(see above).

Solomon further discloses, wherein the data input element comprises a keypad (keys in 20 of fig. 16).

With respect to claim 14, Solomon and Glover disclose the multi-component electronic device of claim 9 (see above).

Glover further discloses, wherein the communications interface comprises a modem (14 in fig. 3 is clearly a modem).

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Solomon (US 2003/0006968) in view of Glover (US 2003/0157961) and further in view of Glad (US 6,498,720).

With respect to claim 13, Solomon and Glover disclose the multi-component electronic device of claim 9 (see above).

Neither Solomon nor Glover discloses the data input element comprises a touch screen.

Glad discloses a multi-component electronic device comprising a PDA and a touch screen keyboard (14 in fig. 1; col. 1, lines 15-21).

Solomon, Glover and Glad are analogous art because they are all multi-component devices combining PDAs and input means.

At the time of the invention it would have been obvious to replace the input keys of Solomon /Glover with the touch screen of Glad. The benefit being the increased functionality and greater ease of use.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Will Boddie whose telephone number is (571) 272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wlb
7/19/06

AMR A. AWAD
PRIMARY EXAMINER